

Appl. No. : 10/659,797  
Filed : September 11, 2003

## REMARKS

Applicant notes the Examiner's comment that the information disclosure filed February 6, 2004 lacked copies of the references. A revised IDS will be promptly filed to fulfill the requirements of 37 CFR 1.98 (a) (2).

### Claim Rejections

The Examiner has rejected all of the claims in prosecution as being unpatentable over *Roy et al.* in view of *Krone et al.* For the reasons set forth below, applicant respectfully submits that this application discloses and claims a remarkable advance in the art and that the claims are clearly patentable over the cited references taken singly or in combination.

This application discloses and claims a cell core transformer which is both structurally and functionally very different than the prior art. Paragraph 0096 of this application describes creating a 1-to-1 turn ratio transformer "by passing a primary current carrying conductor and a secondary, or sensing, conductor through the same via 402 (emphasis added). As a result, leakage inductance between the primary and secondary windings is significantly reduced because the windings share the same flux. This and other advantages are set forth beginning with paragraph 0118. As further described in paragraph 0100, a plurality of these 1-to-1 turn ratio cell transformers are combined in series and parallel to form cell transformers of any desired turns-ratio.

The claims clearly distinguish over the art of record. Thus, e.g., claim 1 recites in paragraphs (b) and (c) a "first primary conductor extending through a first one of said via holes" and "a first secondary conductor in said slab of ferromagnetic material extending through the same via hole as said first primary conductor (emphasis added). In total contrast, the cited *Roy et al.* and *Krone et al.* totally lack this claimed structure. Thus, note in all of the figures of *Roy, et al.* and particularly Figures 4 and 6, each of the conductors goes through a different hole in the ferromagnetic material. Similarly, as shown in Figures 14 and 25 and described in columns 4, lines 37-51, of *Krone et al.*, the primary turns 42, 43 pass through vias 40 and the secondary turn pass through different vias 48. Thus, Roy, el al. and Krone, et al. function as conventional prior art transformers in which the primary and secondary windings do not occupy the same via. As a result, neither reference is structurally or functionally similar to applicant's claims.

Applicant respectfully submits that all of the other claims in prosecution clearly

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distinguish over the art of record. *See e.g.*, paragraph (c.) of Claim 2, and claims dependent thereon; paragraph c. of Claims 11 and 12, and paragraph (e) of Claim 13.

As described in the applicant's specification beginning with paragraph 0130, applicant's claimed cell transformer enhancements provide a host of significant improvements in the art over the prior art. Thus, for example, both the cited *Roy et al.* and *Krone et al.* devices will inherently suffer from greater inductance leakage between their primary and secondary windings.

If the Examiner believes that a telephone interview would be helpful in advancing this application to issuance, Applicant's counsel would be very pleased to discuss with the Examiner the very substantial and significant differences between the prior art, as exemplified by the Roy, et al. and Krone, et al. references, and Applicant's claimed invention.

Accordingly, applicant respectfully requests reconsideration and allowance of the claims in prosecution.

**CONCLUSION**

In view of the foregoing comments, it is respectfully submitted that the present application is fully in condition for allowance, and such action is earnestly solicited. If any questions remain, however, the Examiner is cordially invited to contact the undersigned attorney so that any such matters may be promptly resolved.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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